

Concurrent Bacterial Infections are Rare in Febrile Infants <60 Days of Age with Enterovirus/Parechovirus Infection



Margaret Wessling, David D Williams, Mitchell S Barnes, Keith J Mann, Jason G Newland



BACKGROUND

- Febrile infants <60 days of age are at increased risk for serious bacterial infections (SBI), and thus, require an evaluation and frequently, empiric antibiotic therapy.
- Enteroviruses (EV) are common pathogens that cause these febrile illnesses during the summer and fall months¹.
- Clinicians have the opportunity to discharge infants with EV sooner since it is believed that their risk of SBI is low.

OBJECTIVE

- To evaluate the length of stay, duration of antibiotic use, and concomitant SBIs in infants <60 days of age with confirmed EV or parechovirus (PV) infection

METHODS

- A retrospective study of healthy infants <60 days of age from 2008-2010 with PCR positive EV or PV from the CSF was performed.
- Patients were identified by reviewing the virology logs and by reviewing all infants <60 days of age that presented to the emergency department with fever.

RESULTS

Demographics

- 238 records were reviewed: 233 had EV, 5 had PV
- Median age 29 days (IQR 15-43)
- 48% patients were male
- Median length of hospitalization - 48 hours (IQR 39-59)

CSF Analysis

- 63% (75/119) of patients <30 days had normal CSF WBCs (<22) while 40% (41/104) of patients > 30 days had normal WBCs (<10)²

CSF	Median	IQR
WBC	9	2-210
Protein	54	39-82
Glucose	44	39-46

Antimicrobial Use

- 237 of the 238 infants were started on at least one antibiotic on admission with approximately 94% being on at least two antibiotics
- Median antimicrobial duration - 43 hours (IQR 33-50)

Most Common Antimicrobials Administered:

Cefotaxime (87%)
Ampicillin (79%)
Acyclovir (15%)
Ceftriaxone (13%)

Concurrent Infections

- Concurrent bacterial infections occurred in 2% (4/238) of patients:
 - ~ 3 UTIs
 - ~ 1 bacteremia
 - ~ CSF bacterial cultures positive in 5 patients- none considered pathogens
- Concurrent HSV infection not detected in any of the 63% with an HSV CSF PCR done
- 6 (2.5%) patients reevaluated in the ED for febrile illness within 2 weeks of discharge
- 2 (0.8%) patients readmitted for febrile illness within 2 weeks of discharge

CONCLUSIONS

- Infants <60 days of age with a normal CSF exam should have an EV and PV testing performed.
- Concurrent bacterial infections are rare in infants with EV or PV.
- This should reassure physicians that discharge home is appropriate in the well appearing infant once the diagnosis of EV/PV is established.

REFERENCES

1. Zaoutis, T, et al. (1998). Enterovirus infections. *Pediatr Rev.* 19(6),183-191.
2. Nechyba, C. (2002). *The Harriet Lane handbook: a manual for pediatric house officers.* (16 ed.). Philadelphia: Mosby. 556-557.



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